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PROVINCIAL HEALTH RESOURCES SURVEY IN AFGHANISTAN HEALTH FACILITIES PRELIMINARY RESULTS

November 1991

Youssef Tawfik

Key points. *The purpose of the Provincial Health Resources Survey was to screen and register all health resources in Afghanistan, and to use the collected data to create a database of existing health facilities and personnel. The survey team visited 15 provinces and collected information on all health facilities and health care workers they found and on those they expected to find but did not. The results are presented in 41 tables, but are not analyzed in this report. The tables present information on the types of medical facilities, medical staff, services, and equipment available in each province.*

The overall objective of the Provincial Health Resources Survey was to screen and register all health resources that exist inside Afghanistan, and to use the collected data to create a database of existing health facilities and personnel. Information produced by the survey should be useful for making health services development decisions ranging from day-to-day operational decisions to long-term planning decisions. The survey results and the database are intended to be used by MSH, the Ministry of Public Health, and the World Health Organization.

Methodology

Four forms were designed for the survey: Health Facility Found Form; Health Facility Not Found Form; Health Worker Found Form; and Health Worker Not-found Form.

The Health Facility Found Form was filled out for each health facility found by the survey team inside Afghanistan. A health facility was defined as two or more health workers of any category working together. The Health Facility Not-found Form was filled out for every health facility the monitoring team expected to see and evaluate but could not find; the form investigates whether the facility was ever active and whether it is temporarily or permanently inactive or is active elsewhere.

The Health Worker Found Form was completed for every Basic Health Worker, Female Health Worker, or Medical Technician working alone. The form gathers information on the health worker's education, experience, training, and load of work. The Health Worker Not-found Form is similar, completed for each of the same categories of workers who are not present where they are supposed to be during the time of the visit by the monitoring team.

The survey monitoring team ranged included 2 to 12 persons per province. Each team was trained by the MSH monitoring office supervisors. Fifteen provinces were surveyed between January 1990 and May 1991: Badakhshan, Balkh, Bamyan, Farah, Ghazni, Ghoor, Herat, Kabul, Kabisa, Kunduz, Laghman, Ningarhar, Parwan, Takhar, and Wardak.

Results

Analysis of the survey results is meant to be a continuous process, so those presented in this report are to be viewed as a sample of how the collected data can be summarized and used by decision-makers. Survey results are analyzed at the three levels: provincial, district, and facility. This report contains some of the results obtained from the Health Facility Found and Health Facility Not-found forms in 15 Provinces. They are presented in 41 tables and a map, without summation or analysis. A copy of the Health Facility Found Form is included at the end of the document.

The map presents the health facilities found in 22 districts, by type of facility. The tables present the information by province for the 15 surveyed provinces, and are as follows.

1. Date of survey and number of surveyed health facilities
2. Party support of health facilities
3. Year of establishment of health facilities
4. Load of work per facility
5. Ratio of women and children in outpatients per facility
6. Average population served and number of villages per facility
7. Total number of, and number of facilities with, doctors, surgeons, doctor assistants, nurses, and medical students
8. Total number of, and number of facilities with, dentists, dental technicians, dental assistant technicians, pharmacists, and pharmacist assistants
9. Total number of, and number of facilities with, medical technician 6-9 months, 9-14 months, and 14-18 months
10. Total number of, and number of facilities with, BHWs, Vaccinators, First Aiders, and Nurse Midwives
11. Total number of, and number of facilities with, X-ray technicians, X-ray assistant technicians, laboratory technicians, and laboratory assistant technicians
12. Total number of, and number of facilities with, administrators, guards, cooks, cleaners, and drivers
13. Total number of staff, women staff, and expatriates and their average per facility
14. Availability of in-patient services
15. Availability of laboratories and X-ray machines
16. Reasons for having a non-functioning laboratory and X-ray machine
17. Availability of operating theater and anesthesia
18. Type of sterilization
19. Type of vaccine storage
20. Type of patient records
21. Location of Health Facilities
22. Number of facilities by type of building material
23. Number of facilities by magnitude of war damage
24. Number of facilities by source of electricity and heat
25. Number of facilities by source of water
26. Number of facilities with transportation
27. Number of facilities by level of prenatal and postnatal care
28. Number of facilities offering dai training

DEMOGRAPHIC AND HEALTH HOUSEHOLD SURVEY IN AFGHANISTAN
WARDAK PROVINCE

March 1991

Youssef Tawfik
Field Supervisors: Omar Bahaand, Bacha Saleh, Waheedullah

Key points: A household survey was conducted in 1990 in Wardak Province to study morbidity, mortality, sources of and expenditure on health care, disability, and maternal health. Three hundred and ten households were surveyed, of which 98% were within 2 km. of a health facility. Females in the childbearing age group were significantly more prone to illness than other age groups. Infectious diseases led the morbidity list; acute respiratory infection and acute diarrhea were high. Hospitals and clinics were the most frequently used source of medical care; private doctors and pharmacies were the most expensive source of care. Of the women who had delivered in the last year, only one-third had sought prenatal care. Of the children under five, 60% had had no supplemental food or fluids by age 6 months. The report contains 12 tables and 19 figures of survey results. The study proved that household surveys can be conducted in Afghanistan by a project based in Pakistan, and that selected Basic Health Workers can be used as surveyors if properly trained and supervised.

To plan health services in Afghanistan and set priority programs, the Afghanistan Health Sector Support Project conducted basic health surveys and operations research. The primary objective of such studies was to improve the quality, efficiency, coverage, and sustainability of the health services initiated by the Project.

The objectives of this 1990 survey were: To study the morbidity profile of the community; to investigate the available sources of health care, including maternal care, in the community and the level of their utilization; to study the mortality profile of the community; to gather data on the magnitude of expenditure on health care services; to get a sense of the extent of physical disability in the community and the relationship of such disability to the long civil war; and to do a preliminary investigation on the status of child health and nutrition.

This report is divided into six parts: I. Introduction, II. Study Conclusion - Summary, III. Literature Review, IV. Objectives of the Current Survey (1990), V. Methodology, and VI. Results, with the Questionnaire Forms in an Annex.

Survey Methodology

The selected survey sites were Takhar province, Wardak province in the central mountainous part of the country, and Kandahar province in the south. This report presents results for 310 households in Wardak province; at the time of this report, Takhar and Kandahar provinces were yet to be surveyed.

The study proved that household surveys can be conducted inside Afghanistan while the project is based in Pakistan, and selected BHWs (Basic Health Workers) can be used as surveyors if properly trained and supervised. If BHWs are selected as interviewers, there is a possibility of introducing a certain bias to study results, especially when evaluating the performance of health personnel in the community or the level of patient satisfaction with sources of health care. Also, using a male BHW limits access to information on women and neonatal health status in the community.

Results

On average there were 6 individuals per household. The majority of households (98%) were within 2 kilometers of a health facility. Forty-two percent of males and 1.6% of females above the age of 5 claimed that they could read and write.

The morbidity pattern of the community revealed that females in the childbearing age group of 16 to 45 were significantly more prone to getting sick than other age groups. Infectious diseases were on the top of the morbidity list for all age groups. Acute respiratory infection and acute diarrhea were high. Dysentery cases were surprisingly high, counting for 11.2% of all cases. Suspect TB and suspected malaria cases were high, respectively forming 8.7% and 5.6% of cases.

The sources of health care that were most frequently called upon were: hospital or clinic; BHW; private doctor; shop for medicine (dokan); mullah; and pharmacy. The fact that hospitals or clinics were the most frequently used source of care reflects the relatively high concentration of such facilities in Wardak province.

On average, for all sources of health care, patients paid an amount equivalent to 1.5 to 2 times the average household daily income. Almost two-thirds of the expense was spent on drugs, and the rest on transportation and consultation fee.

Private doctors and pharmacies were the most expensive sources of health care available to the community. The average cost of service from each of these categories was 5 times the average daily income per household.

Only 1.4% of the population suffered from physical disability. Accidents, war injuries, and musculoskeletal disorders including poliomyelitis were the most frequent causes of physical disability.

Of the women who had delivered in the 12 months before the interview, only one-third had sought prenatal care. The important sources of prenatal care are dais (traditional birth attendants), mullahs (religious men respected in the community), and private doctors. Almost one-fifth of women claimed that they had received a vaccination during their pregnancy. More than 90% of deliveries took place at home; the dai, the mother-in-law, and the mother were the main source of help during delivery.

Sixty percent of all children under 5 in the sample did not have any other foods or fluids, apart from milk, introduced into their diet by the age of 6 months. A TB vaccination scar was detected in 56% of children, and there was no significant difference between males and females.

In spite of the under-reporting of mortality in general, and in particular for infants under 3 months old, children under 5 years comprised more than half the deaths. Diarrhea and acute respiratory infection caused almost half the deaths.

The report discusses training field supervisors and interviewers; selecting districts, villages, and households; the different questionnaire forms used; the special challenges encountered (such as conducting a survey during a civil war); and the lessons learned from the field test of the survey. The report presents the results in detail, including numerous tables and graphs. The Annex contains copies of all the questionnaire forms used.

Tables

Figures

A Health Survey of Three Provinces of Afghanistan: A Tool for the Planning of Health Services

November 1977

Key points: A village health survey was carried out in 1976 to determine health needs in rural Afghanistan and the health resources that would be required to manage a rural health program. A total of 723 people in 17 villages of three provinces were surveyed. The report lists the survey's important findings and their implications for planning health programs. Important findings include: infants, young children, and women have a disproportionately large burden of illness and death in rural Afghanistan; a few illnesses account for most of the illness and death; malnutrition is a severe problem of young children, and child-rearing practices contribute to it; both males and females are interested in learning about child spacing; and those of lower socioeconomic status have higher prevalence of disease, infant mortality, and fertility. In terms of health care resources, rural Afghans use many sources of care; 7.4% of household income is spent on health care, medicines being the most expensive item; and villagers strongly support the concept of a village health worker.

Survey period: August-October 1976

The purpose of this village health survey was to obtain the information on health needs and the health resources required for managing a rural health program in the most effective and efficient way. The survey questioned people living in 17 villages of three provinces: Ghazni, Helmand, and Baghlan. The survey's findings are presented in three sections:

- A description of the characteristics of the populations studied
- An analysis of the nature of health problems in Afghan villages
- A description of the health behavior of rural populations and of the health resources presently used by villagers

The most important findings of the survey and their implications for planning village level health programs are as follows:

Health Problems

- Infants, young children, and women have a disproportionately large burden of sickness and death in rural Afghanistan. More than half of all deaths occur to those under five; women aged 30-45 have a rate of reported illness almost twice that of men in the same age group. **Implication:** Any village level health program should give special emphasis to the health problems of women and children.

- A few illnesses account for most of the illness and death in rural Afghanistan; respiratory illnesses, diarrhea/dysentery, and jinns (a folk classification for childhood deaths attributable to evil spirits) account for over 50% of recent deaths. **Implication:** A health

worker trained in preventing and treating a few of the most common illnesses could have a large impact on the health of a village.

- With one exception (malnutrition), the health problems that the villagers perceive as being "most serious" are those which account for the greatest proportion of illness and death as determined by this survey; 56% of respondents named respiratory and gastrointestinal illnesses as the most severe problems. **Implication:** A village health program that focuses on the most serious health problems should receive cooperation and support from villagers. A program to improve child nutrition may receive less initial support.

- Malnutrition is a severe problem of young children in rural Afghanistan; fewer than 60% of children in any age group are well-nourished according to arm circumference measurements. Malnourished children had a reported illness rate almost three times that of well-nourished children. **Implication:** Malnutrition must be addressed both at the local level (programs to improve child nutrition) and at the national level (to further investigate the problem and its causes and solutions).

- Child-rearing practices contribute to the childhood malnutrition. High-protein foods are reported as not being introduced into the child's diet until almost two years of age; children with illnesses such as diarrhea are frequently reported as being denied the foods they require. **Implication:** Educating mothers on healthy feeding habits should be a priority.

- Although actual and desired family size of rural Afghans is very large, 69% of males and 92% of females are interested in learning ways to increase the time between births. **Implication:** Any program to improve health should include information of family spacing methods.

- Environmental conditions in the village contribute to illness and are perceived by many villagers as being unsatisfactory; 80% of male respondents were willing to contribute their labor to improve village sanitation. **Implication:** Programs to improve the village environment would likely receive high levels of community support.

- Those of lower socioeconomic status tend to have higher prevalence of disease, infant mortality, and fertility. **Implication:** The needs of the very poor must be recognized, and programs must be sure to reach them as well.

Rural Health Resources

- Rural Afghans use many services; in the year prior to the survey, households made an average of 17.5 visits to all sources of treatment with an average of 3.6 different sources being consulted. Both modern and traditional services were used, 60% having used a pharmacy, 50% a mullah, and 25% having visited a shrine. **Implication:** In designing a village level health program, it is important to know the alternatives available and to work with those who are already providing health services to the village.

- Rural Afghans spend a large amount of money on health care now; 7.4% of the estimated household income is spent on health. **Implication:** As villagers are already spending large amounts of money for health services, they should be able to support local health programs, such as a village health worker, provided the programs have a demonstrated value to the village.

- Medicines are the most expensive item in the villagers' health budgets; 37% of the annual health expenditure is spent at the pharmacy. **Implication:** One of the greatest health care savings for villagers could be made through increasing access to low cost, high quality medicines through programs carried out through existing pharmacies, Basic Health Centers (BHCs), village shops, or village health workers.

- Villagers' satisfaction with the services currently available varies; 64% are satisfied with the BHC, but only 31% felt the dokhan was an adequate source of medicines. One third felt the BHC was the best source of treatment outside the household for an illness, while only 1% named the local private doctor. The most frequently mentioned health improvement needed was access to medicines. **Implication:** Respondents are satisfied with BHC services but not with its role in distributing medicines. A program to improve access to drugs would receive a high level of village support.

- Villagers are strongly supportive of the concept of a village health worker; 78% of males and 95% of females felt a VHW was feasible for their village, and a significant number were able to name a person (often a woman) who they felt would make a good VHW. **Implication:** A VHW program would probably be favorably received by villagers.

- Informants agreed that VHWs should be paid but disagreed on how; 43% stated that the village should pay, slightly more stated the government should pay. **Implication:** More evaluation is needed to determine whether villagers can support a health worker and to determine the best means for collecting money.

- A relatively large percent (27%) of males stated they would allow their wife or daughter to be trained as a VHW; 34% felt it would be possible to find a woman from the village who could leave the village for some duration for training. **Implication:** In most villages it should be possible to recruit and train a woman as a VHW.

- Women's mobility is severely limited by the restrictions placed upon their travel, but 44% reported being able to visit a BHC unescorted by a male. Almost half the women listen to the radio at least once a week. **Implication:** While information channels into the Afghan village are currently quite narrow, especially for women, innovative mass media radio techniques could be used to improve maternal knowledge and child-rearing practices. The BHC is a legitimate travel destination for many women and can serve as an important educational center as well as a place where women can communicate with one another.

- Socioeconomic status affects the opportunities a household has for health care and for its attitudes concerning what is appropriate treatment. Poorer households also have fewer opportunities to receive information to help them improve and maintain their health.

PART I
GENERAL PROGRAM INFORMATION

HEALTH CARE IN MUSLIM ASIA:
DEVELOPMENT AND DISORDER IN WARTIME AFGHANISTAN

April 1994

Ronald W. O'Connor, Editor

This book provides first-hand descriptions of Afghan and development agency actions to create a network of basic services and of trained Afghan health workers who deliver lifesaving care and supplies deep inside Afghanistan. Project staff contributed chapters on securing the support and collaboration of donors and nationals, designing cross-border services, logistics and financial management, developing a health program for women and children, and planning for sustainability and impact. Professional technical guidance and insights are interspersed with vignettes that graphically convey the excitement and challenges of providing basic health services within a war-torn environment.

Contents include:

Implication: Plans to improve village health conditions must include access for the poor to health services.

Appendix C summarizes some of the immediate applications of this report's findings to planning a village health worker program.

Section II of the report describes the survey's methodology. A total of 723 interviews were conducted of 486 women and 237 men. In every household, an attempt was made to interview an adult male and an adult female. As one goal of the survey was to obtain information on the nutrition and growth of village children, all children aged one to four years in a household were weighed and their height and midarm circumference were measured.

Section III presents the findings of the survey in three parts. The first provides a demographic profile of the population sampled, including male to female ratio, socioeconomic status, and fertility, mortality, and growth rates.

The second part of the section analyzes rural health problems and needs, looking at reported illnesses, illnesses associated with deaths, most serious illnesses as perceived by respondents, nutritional status and child-rearing practices, attitudes toward family size, and the village environment.

The third part of Section III looks at rural health resources, including where people seek treatment for illnesses, how often such sources are used, an overview of the Afghan Rural Health System, the cost of health services, attitudes toward available health resources, attitudes toward a potential Village Health Worker program, how information is diffused in the villages, and socioeconomic status and health behavior. Appendix B describes each of the sources of health mentioned in the report.

A Field Survey of Health Needs, Practices and Resources in Rural Afghanistan

July 1975

A study of the existing health system of five separate areas of the Parwan-Kapisa Province was conducted as part of the Afghan government's effort to introduce effective and economical rural health services. An interview schedule was used to gain information about current health problems, patterns of seeking care, health expenditures and use, and attitudes toward Basic Health Centers. A five level framework of the rural health system was used to describe both traditional and modern services available: (1) in the home, (2) in the village, (3) at the larger or central marketplace, (4) in the towns, and (5) in the cities.

The survey showed that women and children shared a disproportionate burden of illnesses and deaths, and that the overall prevalence of illness in the rural Afghanistan was high. Deaths of children under the age of five represented 68 per cent of all deaths. Reported prevalence of illness for adult females was twice as great as for males in the three months preceding the survey.

A relatively small number of health problems accounted for a major proportion of all morbidity and mortality. Measles, diarrhea/dysentery and pneumonia accounted for 63 per cent of all deaths in children under five years. Body pains constituted over a third of all currently mentioned health problems. The villagers' priority health problems were in close congruence with the illnesses that were attributed to the cause of death in children.

The villagers were found to be utilizing an extensive network of health services. That included both traditional and modern providers. Of all households, 55% had used the services of a mullah in the year prior to the study, 44% had visited a shrine for health reasons, and 36% had used pharmacies. Traditional providers such as bonesetters, hakims, traditional midwives and barbers were found to be on the decline, but still represented a continuing source of health services. Some potential to adapt such services to modern health practices was found to exist.

A lack of information represented a more serious barrier to improved health than a lack of availability of services. Almost 50 per cent of those who died in the year prior to the survey had neither sought nor received any treatment outside of the household. Even though almost 30 per cent of all children between 2 and 3 years of age were classified as malnourished by their arm circumference measurement, malnutrition was neither perceived as a serious health problem nor reported as a frequent cause of child death. The mean reported age for introduction of solid foods was over 15 months.

Households spent a considerable amount of money to obtain health services, on both an absolute and a relative basis. Such expenditure was spread over a wide variety of modern and traditional services. The average household expenditure of $15.80 (Afs 918) represented 6.8% of the annual household income. Of the annual household health budget, 37% was used for the purchase of drugs, while 20% was spent for traditional religious services. The total annual health expenditure for the target population of a Basic Health Center was estimated to be over $130,000.

To improve health service delivery in rural Afghanistan, the survey recommended that new approaches should make maximum use of existing staff and money, including the encouragement and support of traditional health practices that are consistent with good health. New categories of health workers should be developed for the village level. High priority should be given to mothers and young children, and nutrition raised to the level of national concern.

BASIC HEALTH SERVICES STATISTICS: A SUMMARY ANALYSIS

July-September 1974

***Key points:** To improve the poor quality of data that the Afghan Ministry of Public Health was receiving, MSH studied the forms that the Basic Health Centers were required to complete and send in and the data flow. Each BHC had 16 forms and 5 registers to complete, but the study revealed that no BHC had the compete set of forms, the data that are generated are hardly used, and useful data are often not collected or sent to the proper level. The report recommended that the MOPH define the data it needed for planning and supervision and the data needed at each level, establish a control board to coordinate data efforts, and integrate data activities with overall planning and management.*

The work described in this paper was prompted by the poor quality of data reaching the Ministry of Public Health in Afghanistan, a situation that had become more worrisome because the MOPH was moving toward more analytic and comprehensive planning efforts. The Minister requested an advisor to study the problems of data flow in the Basic Health System (BHS), in particular:

- Whether data generated by the Basic Health System was used in planning and management;
- Whether too many forms were required from the Health Centers;
- Whether very few of the forms were completed accurately.

The report lists the primary forms found at the Basic Health Centers (BHCs), which fell under the categories of Basic Health Center Activities Report (2 forms, 3 registers), World Food Program Report (6 forms, 1 register), Sanitarian's Report (2 forms), Laboratory Report (1 form, 1 register), Vehicles Report (3 forms), Drug Usage Report (1 form), and Staff Attendance Report (1 form), for a total at each BHC of 16 forms and 5 registers. However, no BHC had the full set of forms.

The report then lists who had the responsibility for completing the different forms, and describes each of the seven major forms in some detail. A copy of each form is reproduced (in English) at the end of the document.

In the analysis of the BHS statistics system and the forms flow, the report concludes that:

1. The major problem in the statistical system is that very little use is being made of the data generated;

2. Although there are a great number of forms, at this time the forms do not represent the major roadblock to the statistical system;

3. Emphasis should be placed on improving the coordination and control of data collection activities;

4. Emphasis should not be placed on improving statistical sophistication;

5. Interesting and useful data often are not collected or not sent to the proper level within the organization.

The report recommended that:

1. Data needs should be defined for each function and organization level within the MOPH.

Functionally they must:

- Define the data needed for planning purposes (diseases seen, medicines used, etc.)
- Define the data needed for supervision (staff attendance, activity levels, etc.)
- Define the data needed for pilot project evaluation (baseline data, status changes, etc.)

Organizationally they must:

- Define the data needed at the BHC
- Define the data needed at the Provisional Health Office
- Define the data needed by the Regional Supervisors
- Define the data needed at the Ministry in Kabul

2. A control board should be established to coordinate data efforts and be responsible for:

- Developing procedures for form updating and obsoleting
- Developing of training material to be used with forms
- Coordinating the data efforts of the various international agencies

3. Data activities should be integrated with overall planning and management:

- Job descriptions should have requirements for data collection and use.
- Data activities should not be separated into a statistical bureau, but should be kept as part of the BHS office.

4. The MOPH should use Ministry and outside consultant resources to assure that responsibility for Basic Health Service Statistics is handled effectively.

MSH Bibliofile Document AFG0006

PART III
MAPS AND GEOGRAPHIC INFORMATION SYSTEM

GEOGRAPHIC INFORMATION SYSTEM IN THE FRAMEWORK OF PUBLIC HEALTH IN AFGHANISTAN

April 1994

Saeed Osmani, Louis Bucciarelli

The Geographic Information System (GIS) is a location-information computerized mapping system that uses advanced capabilities to deal with a variety of matters such as coordination, planning, location reporting, and monitoring. In addition, GIS is a tool for getting feedback to know what is happening in and around the field.

In the AHSSP, the GIS can describe the activities of personnel working in the field by providing the management team with detailed information such as how many hospitals or clinics are active and whom they serve, number of health workers and clinic location, and amount of funds expended and for what provinces.

GIS manipulated, integrated and presented all financial, medical and geographic data of dozens pages of data on a region in a single computerized map. The map enabled MSH's senior managers to be in constant contact with the field without being there, to be aware of the field without traveling there, and make quick, effective decisions regarding the field without going for observation.

The efficiency and cost-cutting performance of GIS was so impressive that USAID asked for the MSH-GIS Unit's cooperation to systemize and update more than 700 health facilities in Afghanistan. By systemizing and updating, the MSH-GIS Unit revolutionized health facility distributions and saved a great amount of money and time for all the health agencies in the country.

GIS maps are easy to read, less time-consuming to make, inexpensive to produce, and extremely effective in cutting bureaucracy. In the past, no health project worked efficiently and effectively in Afghanistan without GIS. In the future, no competitive and cost-cutting agency should launch a productive project in a developing country without the advanced GIS capabilities.

Maps Produced by the Geographic Information System

This packet of maps illustrates the capacities and utility of the MSH Geographic Information systems. Two sets of maps are included.

I. Geographic Distribution of Services: BHW Coverage and Facilities Locations in Afghanistan, December 31, 1993

1. Active health facilities supported by MSH, Afghanistan
2. Basic Health Worker (BHW) coverage: ratios of current estimated population divided by the number of active BHWs supported by MSH, Afghanistan
3. Health Center Coverage: ratios of current estimated population divided by the number of active Comprehensive and Basic Health Centers supported by MSH, Afghanistan
4. Kabul Province, Active facilities by facility type
5. Kapisa Province, Active facilities by facility type
6. Parwan Province, Active facilities by facility type
7. Warkak Province, Active facilities by facility type
8. Logar Province, Active facilities by facility type
9. Ghazni Province, Active facilities by facility type
10. Paktya Province, Active facilities by facility type
11. Nangarhar Province, Active facilities by facility type
12. Laghman Province, Active facilities by facility type
13. Konar Province, Active facilities by facility type
14. Badakhshan Province, Active facilities by facility type
15. Takhar Province, Active facilities by facility type
16. Baghlan Province, Active facilities by facility type
17. Konduz Province, Active facilities by facility type
18. Samangan Province, Active facilities by facility type
19. Balkh Province, Active facilities by facility type
20. Jawzjan Province, Active facilities by facility type
21. Faryab Province, Active facilities by facility type
22. Badghis Province, Active facilities by facility type
23. Herat Province, Active facilities by facility type
24. Farah Province, Active facilities by facility type
25. Nimroz Province, Active facilities by facility type
26. Helmand Province, Active facilities by facility type
27. Kandahar Province, Active facilities by facility type
28. Zabul Province, Active facilities by facility type
29. Oruzgan Province, Active facilities by facility type
30. Ghor Province, Active facilities by facility type
31. Bamyan Province, Active facilities by facility type
32. Pakteka Province, Active facilities by facility type

II. Assorted GIS Maps

1. Maternal and Child Facilities, 1/22/92: Active health facilities supported by MSH, Afghanistan
2. Refugee population from Pakistan and Iran as a percentage of total population, Afghanistan by province, 3/92
3. Active health facilities supported by MSH, 6/30/92, Afghanistan
4. Health facilities (other than BHWs) supported by SCNA Afghan counterpart of MSH as of 3/31/92, Afghanistan
5. Distribution of clinics and hospitals inside Afghanistan, based on WHO health resources database, 4/20/92
6. Health facilities (other than BHWs) supported by SSWA Afghan counterpart of MSH as of 3/31/92, Afghanistan
7. Health facilities (other than BHWs) supported by HCCA Afghan counterpart of MSH as of 3/31/92, Afghanistan
8. Health facilities (other than BHWs) supported by HCPP Afghan counterpart of MSH as of 3/31/92, Afghanistan
9. Health facilities (other than BHWs) supported by MOPH Afghan counterpart of MSH as of 3/31/92, Afghanistan
10. Training centers supported by AHSSP, 3/92, Afghanistan
11. MSH BHW coverage: inhabitants per BHW as of 12/31/90, by district, Afghanistan (2 copies, legend slightly different)
12. Health Facilities and BHW Coverage, 12/31/90 (2 copies, second in four separate sheets), Afghanistan
13. Health Center Coverage, current estimated population of Afghanistan divided by the number of active Comprehensive and Basic Health Centers as of 12/31/90, by district, Afghanistan (2 copies, legend slightly different)
14. Health Facilities (other than BHWs) supported by MSH, 12/31/90, Afghanistan

USE OF GEOGRAPHIC INFORMATION SYSTEMS FOR HEALTH SERVICES PLANNING AND ADMINISTRATION IN AFGHANISTAN

November 3, 1992

David R. Wilson and Roger Helms

Key points: To manage a rural health care program from a distance, the Afghanistan Health Sector Support Project developed a geographic information system (GIS) which produces easy-to-update computer-generated maps that show the distribution and status of health care workers and facilities. Local Afghan staff were trained to produce updated maps each quarter. The GIS makes geographical relationships much clearer than tables of data do, and simplifies decisions on cancellations or placement of facilities. Because the maps are displayed in offices, the information in them tends to get used more, and they serve as a constant reminder to managers to consider geographic factors such as distance and transport access routes in their planning and problem analysis. The report draws a number of lessons about using a GIS in development projects.

This paper discusses the development and use of a computerized Geographic Information System (GIS) by the Afghanistan Health Sector Support (AHSS) Project (based in Pakistan), to help it coordinate health service delivery across a sometimes hostile border. The paper also highlights some of the opportunities that such systems offer as a management tool in international public health work.

U.S. government regulations have prohibited expatriate project staff from entering Afghanistan for most of the project's life, so the project staff have worked from Pakistan with Afghanistan's Interim Ministry of Health to establish a network of health facilities and health workers who provide the majority of organized health services to Mujahideen-controlled areas of the country. Because of the geographic restrictions, the project has a team of over 100 Afghan monitors who cross the border on a regular basis to visit and interview communities in which all the supported health facilities and basic health workers are based.

Project staff have come to rely heavily on maps as tools for monitoring work. The initial maps were crude and dated from before the 1979 Soviet invasion, and did not allow the project management team to plot changes in the distribution and status of health workers over time.

Computer-aided cartography was being used by several agriculture and rural development programs in Afghanistan, so a series of digitized maps was available in Peshawar, as well as enough local expertise to keep the maps updated. AHSS Project staff decided to pull these maps and their computerized monitoring data together to form a simple geographic information system.

Hardware and software required for the system consisted of an IBM-compatible personal computer, a digitizing tablet, an HP laserjet printer with Plotter cartridge, FoxPro database management software, and the mapping softwares ATLAS-Graphics and ATLAS-Draw.

The key steps in producing the maps were:

- Preparing a data processing routine to take raw data from the Field Operations monitoring system, aggregate it, and put in the right format
- Pinpointing the locations of all health facilities and producing a data file of their latitudes and longitudes.
- Linking the various geographic and data files together to compose and print each map individually

Local Afghan staff were trained in the skills required to reproduce these maps each quarter, and the project has developed a full-time internal GIS team.

The GIS has changed the way some managers work, including:

- It simplifies decisions on cancellation or placement of new facilities, as facility clustering and overlapping catchment areas are easily identified.
- Unlike a table of data which is often sorted by village in alphabetical order, GIS maps plot the chosen indicators directly on a map where geographical relationships are clear. This prevents managers from overlooking important geographical factors of distance and proximity when trying to draw conclusions from the data.
- The maps have tended to be prominently displayed in the project offices—perhaps as much for their aesthetic value as for their content. Their visibility has contributed to their being used more frequently by managers than tables of data, which are frequently buried under a pile of papers or efficiently filed away.

One interesting attempt to improve inter-agency collaboration by using GIS to merge data sets from different funding agencies illustrated unexpected overlaps in support, as well as some problems with the data sets themselves.

The GIS has evolved considerably since its introduction. In addition to the maps produced quarterly for project managers and the maps that overlay facilities supported by other donors, new variables and new combinations of variables have been introduced.

Annex I is a national map displaying all the Provinces and Districts in Afghanistan and highlighting the variations in Basic Health Worker coverage. Annex II identifies the locations of all types of health facilities in one Province, and Annex III overlays BHW coverage data on the same provincial map.

The report draws a number of conclusions. The GIS offers considerable potential for public health planning and management in developing countries. Some key opportunities are:

- Providing a means for summarizing and presenting complex data in a cross-culturally understandable graphic format instead of in lengthy statistical tables.

- Serving as a constant reminder for managers to recognize the importance of geographic factors such as distance, transport access routes, physical barriers, and even political and ethnic diversity in their analysis of distribution problems and potential solutions.

AFGHANISTAN HEALTH PORTFOLIO EVALUATION

February 2-23, 1992

Merrill M. Shutt, Pamela A. Hunte, and Jinny Sewell

Key points: In 1992 USAID conducted an external evaluation of its two health projects in Afghanistan, one of which is MSH's Health Sector Support Project. The Team found that in the area of health services delivery, MSH had made good investments in staff development, planning, and training capacity and recommended continuing the support and emphasizing the Ministry of Public Health's role in national policy making, planning, coordination, manpower development, and training. The Team praised MSH's training and curriculum development, and recommended continuation. The Team found MSH to be the leader in Maternal and Child Health activities and recommended continuing support. In monitoring and health management systems, the Team found MSH to have the most elaborate monitoring system and mentioned the usefulness of its surveys although delays in data analysis had decreased their timeliness; it recommended a review of all data sources. The Team praised MSH's work in developing and installing a pyramidal health system, and recommended continuing this work. The Team cited the cost savings that resulted from MSH's review and revision of the drugs it supplied and praised MSH's quality control standards, and recommended that the CAs collaborate on drug and equipment procurement. In an appendix, progress on the action decisions of the Project Evaluation Summary of 1990 are reviewed.

This evaluation of the O/AID/REP health portfolio was prepared for the Office of the A.I.D. Representative in Afghanistan by a three-person external team. Since 1986, O/AID/REP has supported health projects from Pakistan whose beneficiaries live in Afghanistan. The current projects are the Health Sector Support Project administered by MSH and the PVO Support Project administered by three private voluntary organizations. The purpose of this evaluation was to help the O/AID/REP to target its 1992 health funding obligations, prepare a health strategy for after 1992, develop a plan for moving the program inside Afghanistan, and outline needs to be addressed by a follow-on project. This abstract will discuss only the findings that relate to MSH's work.

Health Services Delivery. The Evaluation Team is confident that health care delivery in rural Afghanistan is significantly better than it was in pre-war days, in large part due to the efforts of the two projects. MSH has made good investments in staff development, planning, and training capacity. *Recommendations to USAID:* Continue support of the currently-funded Cooperative Agreements; influence other donors who work with the MSH-supported Afghan quasi-civil structures (Interim Government, etc.); discontinue support of three hospital/clinic facilities recently added to MSH's CA as they are not consistent with the cross-border thrust of the rest of the portfolio; MSH should continue support for the MOPH/AIG in PHC to emphasize its role in national policy making, planning and coordination, manpower development and training while de-emphasizing its role in service delivery given its lack of supervisory oversight capacity inside Afghanistan.

This project's experience has pointed to a number of areas where more work is needed, and has taught the project team some valuable lessons about GIS development in developing countries:

- Most of the process of generating the data required to plot on the maps can be easily automated, but the process of plotting and printing the maps still requires considerable manual/interactive processing.

- The cost of the GIS software used in this exercise is fairly high and puts it out of reach of many who could benefit from the technology.

- A key decision was to develop most maps in black and white and in a standard laser printer-produced A-4 format. This saved the fairly high cost of a color plotter, and the black and white maps can be photocopied cheaply and distributed quickly.

- Afghan staff, like many development workers in this day and age, are intrigued by microcomputer technology and are keen to master it as a means of personal and career development. As a result, there are able local people who are eager for the opportunity to learn how to operate such computerized systems.

- A more effective means should be worked out for agencies working in developing countries to build up and share the pool of digitized maps of this part of the world. The most tedious part of the process is creating the multi-layered geographic files before any data can be plotted.

- One factor that proved very helpful in preparing these maps and aggregating data was that many agencies based in Pakistan that support development work in Afghanistan have standardized a geographic coding scheme for provinces, districts, and villages. The importance of a standardized location coding scheme in a multi-lingual setting cannot be overemphasized, because variations in spellings are common when they are translated from Persian script to English language characters.

Perhaps one of the key lessons learned from this project has been that once managers see what information is possible from the GIS, they will want to use the data in ways not anticipated in the planning phase. Projects using a GIS need to see the effort as an investment in developing a continuing capacity, not a one-time design effort.

PART IV
HEALTH CARE FINANCING AND HEALTH SYSTEMS PLANNING

HEALTH CARE FINANCING AND HEALTH SYSTEMS PLANNING FOR AFGHANISTAN

December 1992

Michael Enright

In 1992, to prepare for the re-establishment of a stable Afghan Health System, the AHSSP initiated a bottom-up health care financing and planning effort. The intention was to complement the health plan produced by the WHO and to promote community involvement in health development. The planning process incorporated several features of Community Involvement in Health Development. Six working groups were set up:

Group 1: Health care financing and fees
Group 2: Logistics/cost reduction
Group 3: Program integration
Group 4: Manpower planning and salary standardization
Group 5: Social marketing, community education, and community participation
Group 6: Health services, quality of care, and pharmaceutical use

Each working group was asked to formulate questions regarding health services in Afghanistan that could be used to promote public discussion on the development of the health system, and greater community involvement in health development. Each group reviewed a list of topics provided, identifying their most important aspects for Afghanistan, the questions that policy makers and the community should consider to carry out their respective roles in the health system and the information they would need. Finally, each group identified specific information that non-Afghan technical assistance personnel should know about the Afghanistan health system before and after the war.

Group 1: Health care financing and fees: Afghanistan has very limited experience with fee-for-service. Prior to the war, most services were either provided by the government free of charge or not available at all in the rural areas. Recently, some donors have begun to charge fees, and this trend is increasing. The future Afghan government is not in a position to provide free health services. Discussions in a shura or with tribal or village elders to agree on health service fees provide an opportunity for the community to discuss the cost and usefulness of various health services. Considerable sentiment exists against charging fees from many groups, such as the disabled, widows and orphans, children, and mujahideen. There is a need to devise culturally appropriate ways to identify such groups. Modest fees implemented so far have not met any resistance from patients. As there is a strong propensity among Afghans to take medicines, a

significant area for development of community action in health is educating persons about unnecessary medications and improved procurement of necessary medicines.

Group 2: Logistics/cost reduction: To reduce costs, policy makers need access to a costed drug list, and to information on the cost experience of various transport companies. Published lists of recommended prices of drugs and supplies should be made available to the community, as experience has shown that the Afghans have little price knowledge and are willing to pay high prices for drugs with brand names. It will be necessary to change the incentives in the medical system to remove any benefit to practitioners from recommending medicines. At the same time, it will be important to develop methods for identifying persons who are unable to pay for health services.

Group 3: Program integration: Afghan policy makers can not expect coordination from the donors without asserting Afghan leadership. The government should embark on strategic planning for the future Afghan health service, and develop a clear policy toward foreign assistance. Provincial surveys are needed to gather information about the state of the old system and about the extent and value of the contributions of donors in laying the foundation for preventive medicine. The previous health system has suffered substantial deterioration or destruction. Health programs that were effective in the past, such as TB and malaria programs, have been destroyed. New rural programs, such as mobile EPI, have been established. Women's health education and the malaria program are two programs that are considered to be most beneficial to the health status of the population and most easily restored. Standards need to be set for each component of the health service. Such standards should be based on the Afghans' judgment of what would provide the biggest benefit to the health status of the population.

Group 4: Manpower planning and salary standardization: This document is not available in the Boston MSH offices.

Group 5: Social marketing, community education, and community participation: Afghanistan has a tradition of community work, and trained motivators may return to communities from refugee camps. In the near term, community monetary support for health in likely to be low, but communities can provide labor, transportation, local materials, and some support for workers. There is no known model of affordable community involvement in health for Afghanistan, but two kinds of traditional helping schemes exist: begar, a mandatory assistance/ contribution, and ashar, a voluntary assistance/contribution. For social marketing, radio communication has been effective in refugee camps. ARIC and HERC have many manuscripts and tapes that could be transformed into posters, booklets, flip charts, manuals, etc. Finally, ideas for possible incentives for modified health behavior need to be developed.

Group 6: Health services, quality of care, and pharmaceutical use: Standardized treatment protocols can help improve quality of care. It may be possible to standardize care and treatment schedules among providers in Afghanistan. Afghan medical practice depends on high use of pharmaceuticals, and there is substantial self-medication. Pharmaceutical quality between manufacturers varies significantly, as do the prices of pharmaceuticals, depending on the source.

Planning Sustainable Health Services in Afghanistan: An Approach

August 1989

As part of the health planning process, a computer-assisted planning tool, called SUS-PLAN, was developed to make a managerially feasible, technically sound, and financially sustainable health plan for Afghanistan. SUS-PLAN allows health planners to: (1) systematically organize the various data required for long-term health planning, (2) relate health needs, health service resources, costs, and impact, and (3) compare and choose among various strategic alternatives. SUS-PLAN has six basic components:

1. Health care needs of the population
2. Health worker and health facility needs
3. Costs per unit of health workers and health facilities
4. Total costs based on unit costs and volume of health services provided
5. Funding sources for paying the costs of the health system, and
6. Coverage and impact of the health services provided.

Almost all of the cost, utilization, and epidemiological data used in the model can easily be changed. Similarly, assumptions regarding the type and location of particular health services can be changed to reflect alternative delivery scenarios. Major alternatives can be tested by shifting the location of services, and the model can estimate the different cost and impact effects of such alternatives.

The first portion of the model, **health care needs of the population**, requires the estimation of the incidence of different health care problems and needs in the population. This "raw" incidence is modified by estimates of the alternatives to government health services. The model next requires an estimation of the percentage of cases which would be seen by each type of health worker at each type of facility. By combining the incidence, allocation, and population estimates, the model calculates a theoretical volume of need for the province in terms of contacts with different types of health workers at different facilities.

The next modeling step determines **health worker and health facility needs** required to service the population's health problems and needs. To calculate this, the model uses estimates of worker productivity with respect to contacts. It also determines the number and type of health facilities needed in the province, based on a list of population centers and their population estimates. The model will indicate the number of health workers and facilities required for the province, but will not specify the allocation of the health workers at the different facilities.

The third step of the modeling process identifies three categories of **unit costs**. These are worker-based costs, health problem-based costs, and facility-based costs. Salaries are the main worker-based costs, but the model allows for the addition of such costs as refresher training or other allowances. Health problem-based costs, such as drugs, vaccines, and expendable supplies, are

all specified by health problem contact. The model makes assumptions about the services provided at different levels of health facilities and the resulting staffing patterns. Maintenance, transportation, and food costs are the main facility-based costs.

Based on the unit costs and the number of health workers and facilities appropriate for the province, the model calculates **total recurrent costs** for the planned health services. These can be examined from a variety of perspectives, including costs by facility, costs by health problem, or costs per contact.

In the fifth step, funding sources for paying the costs of the health system are included. Three major sources provided by the government consist of: (1) the government budget, expressed in terms of per capita health expenditure, (2) donor funds, and (3) revenue generated from health services or drugs. The model can isolate certain costs to be covered in part or in whole by donor funding. It indicates the costs associated with different services at different levels, and calculates the revenue that would be raised by user fees for such services.

Finally, the model attempts to measure the **impact of the health plan**. Estimates are calculated of the effect that can be expected from particular aspects of the health plan on certain indicators of public health, such as infant mortality. While such calculations can not be accurate, they do highlight trade-offs in health impacts as a result of different allocations of resources.

Three basic alternatives were developed to illustrate the types of key decisions that a health planner can make:

1. "Full service" alternative, determined by the epidemiological needs of the population, without regard to cost.

2. "Basic PHC" (Primary Health Care) alternative, in which health services are community-based and thus delivered primarily through Basic Health Workers and clinics, while constrained by the available government budget.

3. "Hospital care" alternative, in which health services are hospital- and clinic-based, also constrained by the available government budget.

PART V
PRIMARY HEALTH CARE AND MATERNAL AND CHILD HEALTH SERVICES

AFGHAN VOLUNTEER HEALTH SISTER PROGRAM MANUAL

April 1994

Linda Tawfik, Diana Silimperi, Ahmadullah Ahmadzai, and Hasibullah

This manual has been written for Volunteer Health Sister (VHS) Trainer/Supervisors and program managers who are directly responsible for implementing a VHS Program. Originally written in Dari for use in Afghanistan, this English translation can be adapted for community-level volunteer programs in other countries.

The Volunteer Health Sister Program was developed by the Afghanistan Health Sector Support Project (AHSSP) as a pilot program to test the feasibility of reaching women within the household with basic health information and services. The AHSSP initiated the pilot Volunteer Health Sister Program in 1991 as a key component of the maternal and child health system. This manual is based upon the lessons learned from the pilot program.

Volunteers are a low-cost, community-based solution to health problems. Health systems which use volunteers therefore promote the sustainability of health interventions in poor communities. The name "Volunteer Health Sister" was derived from the concept that every woman is a sister to others in the community and, as a sister, shares and helps others as a family member would. Volunteers can serve as a critical link between the community and the paid health workers of the formal primary health care system.

The manual is divided into two parts. The first part, Chapter 1 through 13, is focused on how to plan, implement, and evaluate a VHS Program. The second part of the manual, Chapters 14 through 21, is the curriculum to be used for training the Volunteers, who may be literate or non-literate.

Chapter 1 discusses in detail the rationale for the Volunteer Health Sister Program. The VHS Program, an informal maternal and child health (MCH) outreach system, forms the foundation of the primary health care system because it links households with the formal delivery system and works to prevent common health problems or treat them when they first occur.

Chapter 2 discusses "The Relation of the Volunteer Health Sister to the Primary Health Care System." It is important to emphasize that the Volunteer Health Sister is an informal member of the health team within Afghanistan's primary health care system. Her role is to share basic health knowledge, to help educate people about ways to prevent illness, to distribute health promotion products such as soap or essential home-based treatments such as Oral Rehydration Salts (ORS),

and to refer people who need more sophisticated treatment. The Volunteer Health Sister must know her limits in terms of what she can do and know when she should seek help from others in the health care system. Formal health workers and the community must also understand the role of the Volunteer Health Sister and how to benefit from her services.

The community also has a responsibility to help the Volunteer Health Sister. Community members can encourage families to use VHS services, assist in recruitment and selection, and provide essential resources that the government or donors cannot provide for the program. Chapter 3 covers the role and responsibilities of the community for supporting this informal MCH system, and Chapter 4 presents alternatives for recruiting and selecting women to serve as Health Sisters.

The training of Volunteer Health Sisters and Trainer/Supervisors is based on the Health Sister's key "Volunteer Tasks and Responsibilities," which are described in detail in Chapter 5; these tasks have been selected so that women at the household level can deal with the most common illnesses and health problems that kill infants, children, and child-bearing women. Volunteer Health Sisters' training takes place at several levels in the training system, as described in Chapter 6.

Chapters 7 through 13 of this manual explain how management systems for supervision, monitoring and evaluation, logistics and supplies, and financial monitoring must be included as part of the Volunteer Health Sister Program to assure a quality program that reaches high risk women and children. Future programs must address how to meet the health needs of the poorest members of society, while simultaneously promoting self-sufficiency. Chapters 12 and 13 touch on these issues by outlining methods for calculating human resource needs and introducing options for financing the program so that it can be sustained for future generations.

Chapter 14 describes how to use the VHS curriculum. The remaining chapters of are the seven core modules of the curriculum. The modules have been organized to address the preventive health aspects of each health problem, household treatments, and signs and symptoms that require a medical referral.

Chapter 15: Personal Hygiene and Environmental Sanitation
Chapter 16: Control of Diarrheal Diseases
Chapter 17: Immunization
Chapter 18: Nutrition
Chapter 19: Common Cold and Pneumonia
Chapter 20: Safe Motherhood
Chapter 21: Injury Prevention and First Aid

The *Afghan Volunteer Health Sister Program Manual* is a practical guide to establishing a grassroots volunteer outreach program. It uses practical exercises in nearly every chapter so that the manual can be used as a text for training VHS Trainer/Supervisors and program managers.

PROBLEM-ACTION GUIDELINES FOR BASIC HEALTH CARE: A TOOL FOR EXTENDING EFFECTIVE SERVICES THROUGH AUXILIARY HEALTH WORKERS

1974

Key points: *MSH created this tool to improve the services of non-physician health workers. It is a collection of flow charts (problem-action guidelines) to guide health workers in providing maternal care, family planning, and under-five health services.*

This document is a collection of flow charts, or problem-action guidelines, that were created by MSH as a tool for health workers to use to improve their services. They were drafted on the premise that non-physician health care workers can provide appropriate care in both developed and developing countries for problems faced by most people most of the time.

The problem-action guidelines are intended to help health workers to:

1. Classify the **problems** patients bring to the health worker;
2. Logically display **important questions** and **examination steps** to be followed by the health worker;
3. Isolate the most appropriate **actions** and treatments for the problem, using a limited set of available drug supplies;
4. Encourage **referral** of difficult problems to the appropriate workers or physicians;
5. Provide a basis for **supportive supervision** and **in-service training.**

The guidelines begin with a key to the symbols used in the charts (i.e., the different shapes in the decision-making tree and how to read them).

The guidelines have two sections: Maternal Care and Family Planning, and Under-Fives Clinic. Both sections begin with a general problem-action chart, the answers to which send the reader to specific charts in that section. The specific charts also refer the reader to other charts when appropriate.

Maternal Care and Family Planning Problem-Action Charts

History of Pregnancy
Cough or Fever During Pregnancy
Prenatal Examination
Prenatal Treatment

Cough (this is misplaced in this copy, intended for Under-Fives Clinic section)
Labor and Delivery
Early Post-Partum, 0-14 days
Later Post-Partum, Over 14 days
Family Planning

Under-Fives Clinic

Diarrhea in Infants and Small Children
Mild Dehydration
Severe Dehydration
Fever
Nutrition
Immunization

The introduction stated that the problem-action guidelines were evolving and feedback was requested.

MSH Bibliofile Doc. AFG 12

Basic Health Centers Pilot Project: Parwan Province Status Report

May 15, 1975

Key points: This paper is made up of three separate reports on the Parwan Basic Health Center project, the first phase in an initiative to improve Afghan rural health services. The Preliminary Plan for the Basic Health Centers Pilot Project outlines the objectives and evaluation indicators for the project in six Basic Health Centers; the goal was both to improve health and service delivery and to test new approaches to service delivery and program management which are outlined in the report. The second report was a Progress Report reviewing the progress to date for each of the objectives and key project elements. Considerable progress had been made, with the pilot centers seeing more "at risk" groups and patients receiving more services including preventive care. The third report, on Health Service "Outreach" Models, presents a diagram of the steps required to implement the extension of rural health services and the required resources.

This document provides a historical perspective of the development of the Parwan Basic Health Center Pilot Project, the first phase of the Afghan Ministry of Public Health's new initiatives for rural health improvement. The MOPH wished to improve the service provided though the Basic Health Centers while simultaneously expanding their number to one per county. The centers, in addition to providing services, would form the basis of a health and family planning outreach system extending to the remote rural areas.

This document is composed of three reports written at different times: I. The Preliminary Plan, written in May 1974, represents initial thoughts on pilot project development; II. The progress report of March 1975 reviews the pilot project's accomplishments to date; and III. A report on Health Services "Outreach" Models, prepared in February 1975, presents a framework for the conceptual development and planning of alternative approaches to providing village-level health care, as the MOPH realized that Basic Health Centers (BHCs) alone would not be able to meet the needs of the majority of rural people.

I. Preliminary Plan for Basic Health Centers Pilot Project, Parwan Province

The Ministry of Public Health's goal is to provide basic health services, especially preventive services, to all Afghans who want and need them. The principal focus of the project is to develop a comprehensive and effective family health services delivery program, and to develop a more effective communicable disease control effort. The MOPH will test a number of administrative and technical features of this system through a pilot project in six Basic Health Centers in Ghorband, Syed Khel, Jamal Agha, Panjshir, Najrab, and Bagram. The purpose of the project is to show how basic health centers can be made into more efficient and effective health delivery systems, especially regarding family health and communicable disease services.

Training. MSH conducted three-month Basic Health Worker training, and collaborated in preparing a four-week curriculum of extraordinary quality on rural health care. *Recommendations:* Continue and expand support of refresher training in Pakistan and move it into Afghanistan; support requests for refresher training for lab technicians.

Maternal and Child Health Programs. The ability to reach females for MCH services has exceeded most predictions. MSH is the leader in MCH, with an expatriate Advisor in Women's Health and Education. MSH training activities seek to develop a larger cadre of female health workers at the mid-level, village level, and household level. *Recommendations:* Continue support for current MCH activities; support research to study whether fees adversely affect access to health services by women and children; implementing agencies should stress dai training.

Monitoring and Health Management Information Systems. Because MSH is the implementing agency providing the most cross-border assistance, it has developed the most elaborate field monitoring system (the report describes it in detail). MSH has conducted comprehensive Health Resources Surveys of 22 of the 29 provinces and has reported on 15. Useful information was obtained, but delays in data analysis decreased its timeliness. MSH also carried out Household Health Surveys in three provinces. Additional work in this area will be valuable to help determine user fees and other revenue generation based on capacity and willingness to pay. *Recommendations:* Coordinate systematic review of all data sources by MSH, MOPH, the Area Health Service Administrations (AHSAs) and supported PVOs to stimulate better facility/worker replacement, reduce duplication, and strengthen the patient referral system; require the implementing agencies to strengthen technical monitoring of worker competence.

Institutionalization. Of all the implementing agencies, only MSH is working (through the MOPH and the AHSAs) to develop and install a pyramidal health system, and is the only agency to train a Basic Health Worker for the community level of the system. The Team believes the MSH approach is the only currently viable method to begin development of rural, decentralized service systems upon which the future Afghan primary health care system can be built. MSH's current training of mid-level supervisory personnel should strengthen existing weak supervision. MSH has already moved much of the training, medical logistics, field administration, and EPI support inside Afghanistan to decentralized points; its performance over the past six years positions it well for transition to a Kabul-based program. *Recommendations:* Continue to vigorously pursue establishment of pyramidal health care delivery systems through MSH and the other CAs unless clear reasons to the contrary arise; continue to fund its current CA portfolio over this transition.

Financial Affordability. All MSH new and refresher training of BHWs has been moved inside; the cost implications of this are not clear, but decentralizing the training to regional areas should have reduced transportation and dislocation costs. The health facilities are to begin revenue generation programs to make up for the salary gap; MSH will begin the process in April 1992. Another cost-cutting measure has been the combined procurement of drugs by the implementing agencies; this followed a thorough review and revision by MSH of drugs it supplied. Procurement for all three agencies is now coordinated by MSH, and the cost savings resulting from this have been impressive; in addition, there has been a higher degree of quality control because of MSH's standards. *Recommendations:* Support transfer of training facilities into Afghanistan; require comparable computations of training costs from MSH, MCI, and IMC; require full participation in combined drug and equipment procurement and standardized salary scale range as conditions

The paper outlines the **project objectives and the evaluation indicators** that will be used. The objectives, which involve both improving health and service delivery and testing new approaches to service delivery and program management, are:

- To increase the number of women and children treated for all health problems, with an emphasis on the preventive health aspects of family health services
- To increase the type and amount of services provided by the health centers
- To test several new or improved approaches for health delivery extension as a means of increasing the health delivery range of a health center
- To rationalize the use of BHC staff
- To test the ability of improved administrative support systems to function effectively under field conditions
- To test a new set of BHC drugs together with a method of prepackaging and labelling

Several **key project areas** were selected for special attention for timely and effective implementation:

- health center supervision (both reporting and supervisory practices);
- a manual for each BHC worker containing job descriptions, workplans, medicines, and medical protocols;
- training about the project and the innovations it will introduce;
- laboratory services;
- health commodities management (including an inventory system and monitoring of medicine use);
- an improved system of recording, transmitting, and processing data on clinic activity levels, immunizations, lab tests, family planning, curative activities, service statistics, administrative data, and extension activities.

The paper describes which agencies will be responsible for the various activities of the project, with a project timetable and a map of the project area (Appendix A). Appendix B contains a description of the technical activity to be carried out in family health and communicable disease services: prenatal care and delivery; postnatal care; child care; immunization, malaria, tuberculosis, and surveillance of principal communicable diseases. Appendix C contains draft protocols for maternal care, late post-partum services, and family planning services. Appendix D presents the list of drugs UNICEF proposed to make available to the pilot project, as many of the problems faced by health centers were due to their insufficient or inappropriate supplies of drugs.

II. Progress Report: BHC Pilot Project, Parwan/Kapisa Province, March 1975

The purpose of the pilot project was to test the government's policies regarding the national BHC network and provide feedback that can be used for improved planning and decision-making. The BHC network, while several years old, was fragmentary and the centers and support mechanisms were not fully operational. MSH sought to fill in the policy and support gaps and evaluate the operation of some test centers over time.

The pilot project planned the following final products:

- an evaluation document with recommendations about improved BHC functioning and support mechanisms;
- estimates of the cost and population coverage of the fully implemented national BHC system;
- a set of job descriptions, technical procedures, and logistic and information flow materials suitable for use throughout the country;
- a functioning "model" BHC area usable, if desired, for testing other health delivery issues.

The report reviews each of the pilot project's objectives and the experience to date, and then discusses each of the key project elements and their progress. Considerable progress had already been made: the pilot centers were seeing greatly expanded numbers of "at risk" groups; family health patients were receiving a greater number of services, including preventive services; clinic staff were amenable to the physicians delegating some care to the paraprofessionals; the new drugs list appeared to have a greater relevance to use than the old and had led to better prescription practices; an improved set of registers and forms were already being tested in the pilot health centers; the health workers manuals had been distributed and the workers had shown interest in the drug dosage chart, the patient screening system description, and the BHC staff work-breakdown chart (least understood and used were the protocols); and the training team had performed adequately although it had needed reinforcement from MSH counterparts.

At the time of this report, the project was in its initial operational phase. The next phase, scheduled to begin in March 1975, was to reinforce weak or poorly-understood features; focus on new and improved extension activity; and introduce some simple communicable disease control activities with supporting materials. The report then discusses the strategies for phasing the project results into other provinces.

III. Health Services "Outreach" Models

The major goal of the Afghan Health Program is to extend effective rural health services. As the Basic Health Services system would probably be able to provide services to only 30% of the population, the Ministry of Public Health decided alternative and complementary services were needed. In parallel with the Parwan/Kapisa pilot phase, the Minister directed studies of alternative strategies for reaching rural areas. A study was conducted of the experience of other countries that might be useful for Afghanistan; another study looked at the actual needs and practices of the rural people; a decision was made on the factors to be considered when selecting what alternative delivery strategies to try; and an implementation strategy was drafted which included consideration of the necessary resources.

This brief report presents a diagram of the steps required to implement the extension of rural health services, a list of the factors to be considered in selecting alternative delivery strategies, and the implementation strategy and required resources.

MSH Bibliofile No. AFG 23

PARWAN BASIC HEALTH CENTER PILOT PROJECT
EVALUATION REPORT

March 1976

Key points: An evaluation of the Basic Health Center (BHC) pilot project was conducted in 1976. The report lists the evaluation's findings for all of the project's objectives, and its recommendations. Among its ***findings*** *are that developing a "package" of services for the BHC to offer resulted in far more services, both in type and number; the laboratories are underutilized and produce poor quality results; the division of labor was improved by delegating some of the routine care patients to non-physicians; the drugs on the new proposed list can treat 90% of all diagnoses made in the pilot centers; Afghan training teams can be used to implement the project nationwide; BHC supervision needs improvement; BHC budgets fall short of the resources needed; women and children have a disproportionate burden of deaths and illnesses; lack of information is a more serious barrier to improved health than limited availability of services; and although the health system has many strengths, it lacks several key organizational systems and suffers from problems of staff commitment and morale. The evaluation's* ***recommendations*** *included the following: The MOPH should consider specifying in writing a "package" of services all BHCs should provide; family planning services should be part of family health services; the MOPH should revise its laboratory system; paramedical personnel should be used nationwide to treat routine cases; the MOPH should consider revising its drug list and using pre-packaged drugs; the revised BHC staff manual should be implemented nationally; the BHC reporting system should be revised and a new system developed; supervision materials and training should be developed for BHCs and the provincial level; the cost and population coverage of the BHCs should be studied; the constraints on better BHC staff performance should be studied.*

The Basic Health Center pilot project was conducted to improve and expand the health services provided in rural Afghanistan. Its general goals were to test and evaluate many existing Ministry of Public Health policies about the Basic Health Center (BHC) system; improve the administrative, training, and supervisory support systems; and elaborate on the gaps in BHC technical policy.

The area selected for the project comprised two adjacent provinces of Parwan and Kapisa with extremely diverse topographic, economic, and demographic areas. Both were predominantly rural, with a total population of 1.4 million. The six BHC test sites were deliberately selected for their diversity.

The project had the following phases: Clean up and restock the pilot BHCs; train mobile training teams; implement the project in six BHCs; implement the project outreach phase; and evaluate the project.

This evaluation report has five major sections: I. Introduction; II. Objectives; III. System Strengths and Constraints; IV. Conclusions and Recommendations; and V. Appendices.

Section II. Objectives

This evaluation document begins by listing the pilot project's objectives and summarizing the services to be carried out for each objective, and the achievements made. The document then discusses in detail the findings for each objective. The objectives were to:

1. Increase and rationalize services in the Basic Health Centers
    - A. To increase the number and types of services
    - B. To rationalize and improve services

2. Provide Logistic and Information System Support for Services
    - A. To develop better logistic support
    - B. To rationalize aspects of the BHC information system
    - C. To help improve the flow and processing of service statistics

3. Provide Training and Supervision Support for BHCs

4. Gather and Evaluate Other Information Relevant to BHC Analysis and Planning
    - A. Costs
    - B. Patient attendance and travel distance
    - C. Village survey

Section III. System Strengths and Constraints

The report does not contain a thorough review of the strengths and constraints of the Government of Afghanistan (GOA) health system, but the Parwan experience sharpened awareness of these factors as they relate to the BHC network. For the Central Level of the MOPH, the report presents a table of strengths and constraints under the categories of Resources, Organization, Communications, and Policy/Behavioral, and notes that while the strengths of the MOPH are about evenly divided among the four categories, the constraints are disproportionately in the organizational and policy/behavioral categories. The GOA has numerous strengths, but one major problem area is staff morale and job commitment. The report offers several suggested steps for improvement.

There are a number of constraints at the BHC, described in full in the report: low salaries; difficult living conditions; poor training, no work program; administrative and technical guidelines; poor supervision; and inadequate logistic and financial support.

The report discusses the background of the World Food Program (whose commodity distribution has been an integral part of the BHC program for several years), the pressures it puts on the BHC, and possible alternative solutions.

Section IV. Conclusions and Recommendations

Conclusions

1. To increase and rationalize services

a. The "package" approach for service delivery, and the specifications of these in writing, resulted in far more services, both in type and number.

b. A child's health card containing an age/weight matrix is needed in the BHCs.

c. Oral glucose electrolyte therapy has the potential to be an extremely valuable weapon against infant/child diarrhea and secondary malnutrition.

d. Contraceptive services: Despite serious obstacles, the five clinics had 244 oral pill acceptors, which indicates an existing demand at the village level.

e. Laboratory services: The labs are underutilized, produce results of questionable quality, and are not cost-effective.

f. Inoculation services: It is possible to increase the number of inoculations given through several simple measures introduced by the project.

g. Clinic outreach: Unfortunately it was not possible to test the materials and strategies developed for BHC outreach activities.

h. BHC staff division of labor: The new procedures used in the project resulted in the doctor seeing 41% fewer routine care patients and the male nurse and ANM seeing respectively 185% and 31% more patients. These techniques also helped to increase intraclinic referrals and to smooth patient flows. The patient filter/referral system and written task descriptions were particularly useful in this context.

i. The new drug list can treat at least 90% of all diagnoses made in the pilot centers. Prepackaging and labeling were popular innovations that eliminate the need for a "pharmacist" and improve treatment regimens.

j. Providing technical and administrative reference material in manual form to each staff worker was a mixed success; some sections were understood and used, and others were not. These manuals have now been rewritten.

k. Disease patterns: The ten most common diagnoses account for 57% of the total, the 25 most common for 84%. The commonly seen diseases are easily diagnosed and treated.

2. To provide logistics and information support for services.

Logistics and information flow systems were partially tested with mixed results. More commitment to improvement in these areas is needed by the MOPH and much more work must be done.

3. To improve training and supervisory support for services.

   a. Using special Afghan training teams to implement the project was found to be a reasonable approach which could be adopted, with certain changes, for national BHC implementation.

   b. Improved BHC supervision was not attained. This area needs more commitment to improvement and much additional effort.

4. To gather and evaluate information

   a. Cost

      1. Current and planned BHC budgets are falling short of the amount required to operate the BHC system.

      2. It is possible through increased attendance to reduce per-patient visit cost by a factor of three.

      3. A drug budget per BHC of 65,000 afghanis begins to approach the patient demand.

   b. Patient attendance and travel distance

      1. There was a 15% increase in female attendance and more than a threefold increase in overall patient attendance.

      2. The maximum expected travel distance to a BHC is about 6 km each way.

      3. A theoretical methodology suggests that up to 26% of the population of a woleswali that contains a BHC could have reasonable access to it.

   c. Village survey revealed:

      1. Women and children share a disproportionate burden of deaths and illnesses.

      2. A small number of health problems account for a major proportion of morbidity and mortality.

      3. The health priorities of villagers are primarily focused on illnesses which most commonly result in child mortality.

4. Rural Afghanistan contains an extensive network of traditional and some modern health services.

5. Lack of information is a more serious barrier to improved health than the limited availability of services.

6. Malnutrition is a major threat to child health; its cause and severity are due to a lack of knowledge about the basic needs of mothers and children.

7. Village households spend over 900 afs per annum on both traditional and modern health care; the largest percentage of this expenditure is on drugs.

5. System strengths and constraints.

Although the health system has many strengths, it also suffers from certain constraints, especially the lack of several key organizational systems, and problems related to staff commitment and morale.

Recommendations

1. BHC technical and administrative improvement

   a. Consideration should be given to specifying in writing a "package" of services to be provided by each BHC describing what services should be offered and by whom.

   b. The child health card should be revised and retested.

   c. Family planning services should be included as part of regular family health services.

   d. As the labs are grossly underused, the MOPH should consider operating fewer of them; providing better training, supplies, and supervision; and assigning more responsibilities to the lab technician.

   e. The materials and strategies developed to test a new clinic outreach program should be tested so more of the population can receive services.

   f. The revisions to patient flow, referral system, and staff task descriptions should be considered for national adoption, so that more use is made of paramedical personnel for treating routine cases.

   g. With regards to the drug list, the MOPH should consider revising its drug list and using pre-packaged drugs, study the feasibility of charging for drugs to increase and upgrade the supply; increase the budget for drug supplies; implement a policy of dividing drugs among key paramedical staff.

h. The committee should consider charging fees for drugs, to insure steady supplies.

i. The revised BHC staff manual should be tested, evaluation, revised, and then implemented nationally.

2. Logistic and information support for services

a. The strategy and materials for a new BHC logistics system should be tested and evaluated.

b. A small committee should review all forms used in the BHCs and rationalize the system, and develop a system for submitting and processing monthly reports.

c. The MOPH should consider adopting the WHO list of 150 diagnostic categories for recording and processing data on morbidity and mortality.

3. Training and supervisory support

a. Afghan training teams can be used, under certain conditions, to implement the improved national BHC system.

b. Materials and training on supervision needed to be developed for both BHCs and at the provincial level.

4. Information for policymaking

a. A study is needed of the cost and population coverage of the BHCs, detailing the cost of the individual program sectors (family health, labs, drugs, etc.).

b. Senior MOPH officials should carefully review the results of the village survey to devise or revised policies based on its findings.

5. Performance constraints

a. A committee of senior MOPH officers should review the constraints on better BHC staff performance.

b. A senior MOPH official should work with the director of the World Food Program to determine whether the new WFP register is necessary, and revise the WFP distribution practices to reduce conflict between commodity distribution and medical care delivery.

6. Disease patterns

BHC services should focus on the prevention and treatment of the most common diseases. All supplies, equipment, training, supervision, and written staff materials should reflect and support this focus.

Appendix A: Methodology

This appendix lists the principal data sources for this report and the information derived from them. It discusses the distance travelled to clinics, the source of the data, and the basis of potential estimated population coverage for each BHC.

Appendix B: BHC Operating Costs

This is a table of "Typical" amounts and sources for funds per BHC per annum, and a breakdown of "Typical" BHC operating costs for one month.

Appendix C: Disease Patterns at Six Pilot Project BHCs

The disease pattern was taken from the registers provided to the doctors, ANMs, and male nurses. The ten most common diagnoses are presented along with how they were calculated. Seasonal trends, common diagnoses, uncommon diagnoses, and disease patterns between clinics are discussed. A table presents the frequency distribution of diseases seen during the entire pilot project.

Appendix D: Evaluation of the UNICEF Drug Component in Parwan/Kapisa Pilot Project

A revised drug list comprising 42 drugs, fluids, and vaccines was proposed as part of the pilot project. The list was based on the best available information on rural epidemiology. UNICEF agreed to supply this list, and it was tested over a period of nearly a year in five fully operational BHCs and one partly operational BHC. This evaluation provides a background on drug use in BHCs, listing three major disadvantages of the original system and then describing the major innovations in the drug component of the pilot project. The evaluation examines the patients' response to prepackaged drugs and BHC staff acceptance of the new drugs, with detailed results of staff interviews on the subject. The evaluation also looks as BHC staff use of a drug-usage chart, and the inventory/resupply/logistics system. One table presents estimates of annual drug needs based on nine-month consumption in the six pilot centers, detailing the need for each of the 41 drugs. The evaluation continues with a section on the estimate of the total annual drug costs for national implementation, and discussion of a policy of charging for drugs in BHCs. The evaluation concludes with a list of eight conclusions and eight recommendations.

Addendum A: Standard Drug Lists A and B

Standard list A is for populated areas, B for less populated areas. The list contains the drug names and the amounts recommended.

Addendum B: UNICEF-Provided Drugs

This is a list of the drugs provided and the maximum allowance.

Addendum C: Drug Usage Chart

This table presents for each of the 40 drugs the name of the medicine, what it is used for, and the common dosage.

Addendum E: Flow Diagram of Prenatal Examination and Forms

MSH Bibliofile No. MAFG 37

for CA renewal. MSH should do a review of its supplies and equipment lists to identify possible reductions in line items and amounts supplied.

Program management. The Team concludes it is preferable not to merge the two projects now. MSH's apparently high level of expatriates (nine) does not seem excessive given its CA responsibilities and considering its developmental advisory, not directly operational, role. *Recommendations:* Not consider merging the health portfolio until the post-settlement situation becomes clear; require health expertise and previous overseas project experience for the Key Personnel of its CAs.

The appendices of the Evaluation Report are the Evaluation Scope of Work, the list of persons contacted, the list of major documents reviewed, and the status of the 1990 evaluation recommendations.

PART VI
PHARMACEUTICALS

GOOD MANUFACTURING PRACTICES (GMP) AND GOOD LABORATORY PRACTICES (GLP)

Burton, R. **Good Manufacturing Practices, Jan. 1988**

Khan, Riaz **Good Manufacturing Practices, May 1988**
Good Manufacturing Practices, PT II, July 1988
Good Manufacturing Practices, PT III, Feb. 1989
Good Manufacturing Practices, PTVI, Feb. 1990
Good Manufacturing Practices, PTVII, Aug. 1990

Two pharmaceutical consultants (Dr. Robert Burton and Dr. Riaz Ahmed Khan) worked with the Afghanistan Health Sector Support Project to assess good manufacturing practices (GMP) and good laboratory practices (GLP) of pharmaceutical manufacturers in Pakistan in order to identify firms which could be approved for the project's use. They were asked to: (1) identify guidelines in use by the Ministry of Health of the Government of Pakistan for registering pharmaceutical manufacturers, (2) conduct GPM audits of selected pharmaceutical firms, (3) recommend firms which maintain good quality control procedures and identify problems which need to be rectified, and (4) identify which firms maintain records that allow products/materials to be traced to country of origin.

Six assessments were made between 1988 and 1990. The main criteria used for the assessments were as follows:

- layout, ventilation, environmental control, maintenance and sanitation of the production and warehousing facilities
- suitability, maintenance, calibration and cleaning of production and quality control (QC) equipment,
- maintenance and testing of water treatment and distribution system
- microbiological monitoring of raw materials, finished products and the production environment,identification of approved, rejected and quarantined items
- receipt and testing of raw materials and packaging materials,
- in-process testing
- packaging and labelling control
- warehousing and distribution procedures
- stability testing, retention of material and product samples
- isolation of operations involving the issue of penicillin
- review of master manufacturing and QC documents, documentation revision and distribution control system
- adequacy of standard operating procedures

- adequacy of finished product batch records, especially reconciliation of all material usage
- company GMP training programs
- GMP self-audit programs
- knowledge of GMP amongst managers and supervisors
- degree of motivation of managers and supervisors, commitment to quality
- role of parent company with respect to technical assistance and GMP monitoring
- the use of statistical sampling and process control programs
- process validation

The accompanying grid shows the acceptance of products for project use by pharmaceutical company and date of assessment.

	6 JAN - 3 FEB 1988	25 MARCH - 9 MAY 1988	1 - 19 JULY 1988	16 JAN - 7 FEB 1989	12 JAN - 5 FEB 1990	1 - 31 AUG 1990
MULTINATIONALS						
Abbott Lab. Pakistan		All products			All products	All products
Aspro-Nicholas Pakistan		All products except gentamicin				
Beecham, Karachi	All products				All products	
Boots, Karachi	All products				All products	
Ciba-Geigy (Pak.)	All products					
Cyanamid Pakistan		All products				All products
Fisons Karachi	Unacceptable. Re-audit in third quarter of 1988			All products		
Glaxo Karachi	All products				All products	
Hoechst	All products					All products
Johnson & Johnson		All products				All products
Merck, Sharp and Dohme (Pak.)	All products					
Park, Davis & Company		All products				
Pfizer Labs.	Only non-sterile products					
Rhone-Poulence Wah Gantt.				All products		
Roche Pakistan Karachi						All products
Searle Pakistan		All products			All products	
Schering Asia Lahore					All products	

	6 JAN - 3 FEB 1988	25 MARCH - 9 MAY 1988	1 - 19 JULY 1988	16 JAN - 7 FEB 1989	12 JAN - 5 FEB 1990	1 - 31 AUG 1990
Smith Kline & French	All products					All products
Squibb	All products					All products
Sterling Products		All products				All products
Wellcome Pakistan		All products			All products	
Wyeth Labor. Lahore	Unacceptable		All products	All products		
NATIONALS						
Adamjee Karachi						All products except ampicillin and injectable products
A.D. Marker Quetta			All products			
Antibiotics (P) Iskanderabad Mianwali		All products except antibiotics combinations				
Atco, Karachi				All products		
Atlantic Pharmaceuticals Peshawar					Second inspection recommended	
CCL, Lahore		All products except multi-vitamins and sterile products		All products except multi-vitamins, enzymes and sterile preparations		
Dosaco, Lahore				Inspection incomplete due to flood damage in the factory		

	6 JAN - 3 FEB 1988	25 MARCH - 9 MAY 1988	1 - 19 JULY 1988	16 JAN - 7 FEB 1989	12 JAN - 5 FEB 1990	1 - 31 AUG 1990
Efroze, Karachi			All products		All products (present range only)	
Elko/Krka Karachi			All products of Elko except intravenous fluids			
EPLA Laboratories Karachi		All products				
Ferozsons Labs	Unacceptable					
Geofman Pharmaceutical, Karachi		All products except sterile preparations			All products except antibiotics, capsules and sterile preparations	
Hakimsons Laboratories, Karachi		All products except doxycycline and multi-vitamins			All products except antibiotics, capsules and sterile preparations	
Highnoon, Lahore		All products except multi-vitamins				All table products made in the old factory
Hilton, Karachi				All products		
Irza Pharma Lahore			Unacceptable			
Lahore Chemical and Pharmaceutical Works			All products except intravenous fluids and B12 products		Prequalification of all products suspended	
Meditex Lahore					All non-sterile dressings	

	6 JAN - 3 FEB 1988	25 MARCH - 9 MAY 1988	1 - 19 JULY 1988	16 JAN - 7 FEB 1989	12 JAN - 5 FEB 1990	1 - 31 AUG 1990
Nabiqasim Karachi				All products except antibiotics, cotrimoxazole, vitamins and enzymes		
Pakistan Pharmaceutical, Karachi		All products except sterile preparations				
PDH Labs Lahore			All products*			Prequalifi-cation suspended
Samco Karachi			All products			
Sami Pharm. Karachi				All products except sterile products		Prequalifi-cation suspended
Schazoo Labs Lahore			All products			
Siza, Lahore						All table products only
Star, Lahore						Unaccept-able
Wilson Islamabad	Only non-sterile products				All products of present range except eye preparations	

* Provisional for acceptance of antibiotic injectables

SECTION II
HEALTH SURVEYS AND STATISTICS

BASELINE SURVEY OF THE PILOT VOLUNTEER HEALTH SISTER PROGRAM

April 1994

Diana Silimperi, Linda Tawfik, and Louis Bucciarelli

In 1992, the Afghanistan Health Sector Support Project (AHSSP) initiated a household-level community outreach program at 15 pilot sites in Afghanistan and in one refugee demonstration site in Pakistan. The AHSSP is a cross-border humanitarian health program funded by the U.S. Agency for International Development and supported with technical assistance by Management Sciences for Health. The AHSSP headquarters was located in Peshawar, Pakistan, but the program was implemented across the border in Afghanistan.

A baseline survey was conducted in September 1992, for the primary purpose of later evaluating the effect of the pilot Volunteer Health Sister (VHS) Program.

Using baseline information, it would be possible to compare changes over time in health knowledge, and to a lesser extent, skills and practices, of children's primary caretakers in families served by a VHS versus those without VHS services. (VHS services include health education, distribution of health products such as soap or ORS, and referral.) Other purposes were to assess the clarity and content of the VHS curriculum for potential revisions and to assess the transfer of health information from the Trainer/Supervisor to the VHS, and from the VHS to the primary caretaker.

This survey has documented, in a comprehensive manner, all steps taken to conduct the survey in order to transfer the evaluation steps to those who may wish to conduct a similar VHS survey in the future.

Overall study design

The pilot study was designed as a prospective, intervention-nonintervention comparative study. Intervention households were households which were serviced by a VHS. Two types of nonintervention households were selected: "control A" households, which were not serviced by a VHS but which were located close to intervention households, and "control B" households, which were generally located in a separate village out of the sphere of influence of the VHS Program. This design was to assess whether Volunteers have a ripple effect beyond the families who receive their direct services.

Survey design

Six VHS sites were selected for the baseline survey (in Logar, Ninrahar, Paktia, Ghazni, and Takhar Provinces) and one demonstration site, located in Tajabad refugee camp in Pakistan.

The respondent pool for the seven sites was:

Community Leaders	21 (3 at each of 7 sites)
Trainer/Supervisors	12 (1 or 2 at each of 7 sites)
VHSs	21 (3 at each of 7 sites)
Intervention households	63 (9 at each of 7 sites)
Control A households	63 (9 at each of 7 sites)
Control B households	63 (9 at each of 7 sites)

Data Collection

General descriptive data was collected on 12 variables affecting health status (source of drinking water, transport, household construction, etc.) as well as on access to health services. This data was collected to compare the intervention and non-intervention areas.

The survey focused on the knowledge, skills, and practices of the key respondents (Trainer/Supervisors, VHSs, and primary caretakers in intervention and control households) related to 7 key topics from the VHS curriculum:

1. Personal Hygiene and Environmental Sanitation
2. Control of Diarrheal Diseases
3. Immunization
4. Nutrition
5. Common Cold and Pneumonia
6. Safe Motherhood
7. Injury Prevention and First Aid

Field Constraints

The survey discusses the unusual field constraints related to the socio-cultural milieu and the war in Afghanistan.

Summary of Findings

The descriptive data is useful baseline information for an eventual follow-up survey. Because the survey was not a true baseline, some surprising results were revealed early in the program. Specifically,

- VHS Trainer/Supervisors have a high level of knowledge of the prime health messages.

- The modules needing the most improvement in teaching techniques or content were personal hygiene and environmental sanitation, common cold and pneumonia, injury prevention and first aid, and safe motherhood.

- VHSs do not yet have the same knowledge as the Trainer/Supervisors, but they have an excellent ability to communicate knowledge to intervention families.

- Intervention families who have had contact with a VHS have greater knowledge of prime health messages than control A or control B families, especially for CDD, immunization, and personal hygiene and environmental sanitation.

- Control A families appear to have a greater knowledge of prime health messages than control B families, which suggests a "ripple effect". Although the numbers in the sample are too small for the correlation to be statistically significant, the results suggest that case families may be sharing information with neighboring members of their extended family. Those most likely to receive health messages retained the information; it was not due to conventional wisdom.

- Most community leaders had heard about the VHS Program through the VHS Trainer/Supervisor at the local clinic. All of the leaders interviewed had a fairly good understanding about the responsibilities of the VHS. Results revealed significant community support for the VHS Program

Demographic and Health Household Survey in Afghanistan
Takhar Province

March 1992

Youssef Tawfik
Field Supervisors: Omar Bahaand and Bacha Saleh

Key points: *A household survey was conducted in 1991 in Takhar Province to study morbidity, mortality, disability, sources of health care, and community expenditure on health services. Three hundred and ten households were surveyed, more than half of which were within 2 km. of a health facility. Children under 5 were more prone to illness than any other age group. Infectious diseases were the most common type of disease, with dysentery and acute respiratory infection at the top of the list. The private doctor was the most commonly used and the most expensive source of health care. Only one-third of the women who had delivered in the past year had sought prenatal care. Of the children under five, 71% had not received supplementary food or fluids by age 6 months. The report contains 17 tables and 18 figures with details of the survey results.*

To plan health services in Afghanistan and set priority programs, the Afghanistan Health Sector Support Project conducted basic health surveys and operations research. The primary objective of such studies was to improve the quality, efficiency, coverage, and sustainability of the health services initiated by the Project.

In addition to routine monitoring and evaluation activities, the Project conducted three types of research:

> Provincial Health Resources Survey, to document all available health resources in Afghanistan;
>
> Green Book Analysis, to study the morbidity pattern for health facility users and to evaluate the staff's ability to do case management;
>
> Household Survey, to study morbidity, mortality, disability, sources of health care, and community expenditure on health services.

The Household Survey was carried out in three provinces: Wardak, Takhar, and Kandahar. This report presents the results of surveying 310 households in Takhar province.
Field supervisors with experience in conducting household surveys were sent to Takhar, where they worked with Basic Health Workers (BHWs). Interviews were carried out in July and August 1991 in 10 villages in Taloqan, Farkhar, and Kalafgan districts.

This report is presented in three parts: I. Executive Summary, II. Methodology, and III. Results and Discussion. Part III is broken down into: Description of the Sample Population; Morbidity Pattern, Source of Consultation, and Expenditure on Health Services; Physical Disability; Sources

of Prenatal and Natal Care; Child Feeding and Vaccination; and Mortality. The Annex contains tables and figures, listed below.

Methodology

Within Takhar Province, Taloqan, Farkhar, and Rustaq districts were selected because of their significant population, relative safety, and availability of BHWs to serve as interviewers. However, Rustaq was not safe to travel and was replaced by Kalafgan district. Field supervision was carried out by two Afghan physicians who had been trained in Peshawar. The questionnaire consisted of: General Form, Morbidity Form, Mortality Form, Child's Form, and Woman's Form.

Results

The average number of individuals per household was 5.4. More than 80% of the respondents were males. More than half the households were within 2 kilometers of the nearest health facility; about one-fifth were more than 15 km. away from the nearest facility. Nineteen percent of males and 0.5% of females above the age of 5 stated that they could read and write.

The morbidity pattern of the community for the two weeks prior to the interview shows that children under 5 years of age were significantly more prone to getting sick than other age groups. Infectious diseases were on the top of the disease list for all age groups. Dysentery was the probable diagnosis in 12.2% of cases,; suspected TB and suspected malaria were 7.7% and 4.7% respectively. Acute diarrhea and acute respiratory infection were 12.5% and 9.7% respectively.

The single most frequent source of health care called upon was the private doctor. On average, each patient paid twice the average household daily income for health services. Almost 80% of the expense was for drugs, about 18% for transportation, and 2% for the consultation fee. Private doctors were the most expensive source of health care available to the community. The average cost of service offered by private doctors was 4 times the average household daily income.

Less than 2% of individuals were physically disabled. War injury and mine accidents caused about one-third of these cases.

Of the women who had delivered in the 12 months before the interview, only one-third had sought prenatal care. Dais, doctors, nurses, and mullahs were the sources of consultation during pregnancy. More than 95% of deliveries took place at home. The dai, mother-in-law, and mother were the main sources of help in delivery. Thirty-seven percent of women stated that they had received a vaccination during pregnancy.

Seventy-one percent of children under 5 in the sample did not have any food or fluids except milk before the age of 6 months. A BCG scar was detected in 61% of children under 5, and there was no significant difference between males and females. Out of 21 mortality cases detected during the 12 months before the interview, 11 (52%) were under 5 years and 8 of these (38%) were under one year.

Abstracts of 19 Key Documents

Afghanistan
Health Sector Support Project

April 1994



MANAGEMENT
SCIENCES FOR HEALTH

165 Allendale Street
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Afghanistan Health Sector Support Project

Abstracts of 19 Key Documents

April 1994

Management Sciences for Health
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This publication was made possible through support provided by the U.S. Agency for International Development, under the terms of Cooperative Agreement No. 360-0203-A-00-6014-00, the Afghanistan Health Sector Support Project. The opinions expressed herein are those of the authors and do not necessarily reflect the views of the U.S. Agency for International Development.

In 1986, USAID signed a Cooperative Agreement with MSH to manage the US$60 million Afghanistan Health Sector Support Project, which ended on April 30, 1994. The project's two major objectives were to provide technical and financial humanitarian assistance to expand and strengthen health services inside Afghanistan and to strengthen the capability of the Afghan Seven Party Alliance Health Committee (now the Ministry of Public Health of the Interim Government of Afghanistan) to plan, operate, and monitor expanded health services in Afghanistan. This document presents detailed summaries of key documents from the Project, as well as summaries of key documents produced by MSH's earlier contract in Afghanistan, which ended with the communist invasion in 1979.

Printed in the United States of America

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